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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/606,885 06/29/00 KURODA

Y SONY-T0850

EXAMINER

WM01/0919

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PSIT05.A

ART UNIT

PAPER NUMBER

2651

DATE MAILED:

09/19/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/606,885

Applicant(s)

KURODA ET AL

Examiner

Aristotelis M Psitos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: _____

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

- ✓ 3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of claims 9, 11, 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Information Disclosure Statement

The IDS of 11/30/00 has been received and is made of record.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 9 and 16 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a lack of written description rejection.

✓ In particular with respect to the limitations of claim 9, the examiner can not find any disclosure with respect to the stacking of the materials having the desired claimed ability of different heat constants.

→ With respect to the limitations of claim 16, that of a dye, again, the examiner can find no adequate written description to permit one of ordinary skill in the art know what dye(s) applicants are envisioning to be used with the invention.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 2-4 and 17 -58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

dup In particular, with respect to claims 2 - 4 it is noted that these apparatus/functional desired ✓ abilities depend upon product parent claim. Hence the examiner is not certain as to how these claims particularly point out the product. Additionally, these claims fail under 35 USC fourth paragraph for not further limiting the parent product claim. The examiner recommends canceling these limitations.

dup With respect to claims 17 -58, it is noted that as disclosed the head radiating element is transparent - and as claimed in claim 1. No other embodiment is readily apparent. Unfortunately, these claims - see independent claims 17, 32 and 45 do not so recite. Their heat radiating layer is not limited to be transparent; however, because as further defined in dependent claim - 50 for instance, the same materials as that found in claim 8 are recited. Hence the examiner concludes that the heat radiating element/layer of these independent claims (17, 32 and 45) are, must be transparent as well. The examiner strongly recommends amending the independent claims to so recite. The dependent claims fail to clarify the above, and fall with their respective parent claim.

As FAR AS THE CLAIMS RECITE POSITIVE LIMITATIONS AND ARE INTERPRETED BY THE EXAMINER the following art rejections are made.

Claim Rejections - 35 USC § 102

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

✓ 10. Claims 1, 5-8, 1314; 17, 21-24,29,30; 32, 36 – 39, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Nonoyama et al.

Applicants' attention is drawn to figure 1 and its disclosure. The examiner interprets layer 5 as the claimed first protective layer.

With respect to claims 5, 6, 7 & 8, applicants' attention is drawn to col. 5 line 47 to column 6 line 29. The limitations of these claims are interpreted to be present – note the materials recited (claim 8), the heat conductivity (claim 6), and the difference in conductivity between layers 5 and 6 (claim 5). With

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respect to claim 7, because the limitations of claim 8 – dependent upon 7 are found in the reference, the examiner concludes that the limitation re the quenching coefficient is inherently present.

With respect to claim 13 – the examiner interprets layer 3 as the limitation, and because the material is phase change type, the limitation of claim 14 is also considered met.

With respect to independent claims 17 and 32, applicants' attention is drawn to figure 2 and its disclosure. With respect to the dependent claims (21-24, 29 & 30 and 36- 39 and 44) see the above discussion of claims 5-8, 13 and 14.

11. Claims 2- 4, 18 – 20 and 33 –35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above, and further in view of Novotny et al.

The existence of near field recording systems is considered to be well known and taught by the Novotny et al reference. Although the Nonoyama et al system does not recite such a recording capability, the examiner considers the use of the recording system to be one of choice. Alternatively, using the record medium type of Nonoyama et al with the near field recording system of Novotny et al is also considered a selection of recording media.

It would have been obvious to one of ordinary skill in the art to modify the system of Nonoyama et al with the teaching from Novotny et al, motivation is to save valuable resources by using the near field recording methodology for the recording system of Novotny et al since such is considered a selection of alternative recording systems available to those of ordinary skill in the art for the inherent ability of increasing recording density. Alternatively, modifying the Novotny et al system with the particular recording media of Nonoyama et al is considered obvious, a selection of all ready existing record media in this environment.

12. Claims 45 – 50, 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Novotny et al considered with Nonoyama et al.

The reasons presented above with respect to dependent claims 2 –4, 18- 20 and 33 –35 are repeated herein. Again, the overall near field recording ability with the claimed record media is considered obvious for the reasons stated above.

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13. Claims 9, 25, 40 and 51 rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 17, 32 and 45 above, and further in view of Yoshinari et al.

The limitation of these claims, plurality of layers for the film is considered to be taught by the Yoshinari et al reference – see figure 3 and its description for instance.

It would have been obvious to one of ordinary skill in the art to modify the system of the prior art as relied upon with respect to the independent claims with the teaching from Yoshinari et al, motivation is to increase the heat dissipation/radiation ability by substituting/ modifying the single layer with a plurality of layers as taught by Yoshinari et al.

14. Claims 10, 26, 41 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 17, 32 and 45 above, and further in view of Okubo.

The limitation of these claims, that of the reflective metal layer in the appropriate position is considered to be known as taught by figure 2 of the Okubo reference.

It would have been obvious to one of ordinary skill in the art to modify the system of the art as relied upon with respect to the independent claims with the teaching from Okubo, motivation is to save valuable resources by using existing media using the appropriate metal reflective layer.

15. Claims 11,12, 27, 28, 42, 43, 53, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 17, 32 and 45 above, and further in view of Kikuchi et al.

The ability of having antireflection layers for their inherent use in this environment is considered to be well known as taught by the Kikuchi et al reference.

It would have been obvious to one of ordinary skill in the art to modify the system of the art as relied upon with respect to the independent claims with the teaching from Kikuchi et al, motivation is to save valuable resources by using existing antireflection layer abilities in this environment for their inherent uses.

16. Claims 15 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 45 above, and further in view of either Takeuchi et al or Novotny et al.

The ability of using mo type of recording abilities as the recording technique is considered to be taught by either Takeuchi et al or Novotny et al.

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The examiner concludes that selection of one type of recording technique over another is merely a selection between equivalents with no unexpected results seen to occur there from and predicated on routine engineering criteria such as availability, cost, etc.

It would have been obvious to one of ordinary skill in the art to modify the system of the art as relied upon with respect to the independent claims with the teaching from either Takeuchi et al or Novotny et al, motivation is to increase the flexibility of the base system by using alternative equivalent recording capabilities.

17. Claims 16, 31 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1, 17, and 45 above, and further in view of Official notice.

As far as the examiner can conclude/interpret from the disclosure, the ability of using a dye as the recording material is merely a selection of equivalent recording layers. No unexpected results are seen to occur from selecting a recording layer using dyes as opposed to phase change type as opposed to mo type.

It would have been obvious to one of ordinary skill in the art to modify the system of the art as relied upon with respect to the independent claims with the teaching from Official notice, motivation is to increase the flexibility of the system by using alternative equivalent recording layers as available.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bell et al – use of heat radiating layers in this environment for their inherent ability.

Anderson et al – antireflection coatings – multiple layers for their inherent use.

Yamada et al – optical recording systems – phase change/state change having plural protective – dielectric layers used accordingly – see col. 15 lines 30 plus.

Kawanishi et al – heat radiating layers used in optical recording records for their inherent heat dissipating abilities.

JP 2000076703 – heat radiation layer – 6 – & protective layers in optical records see fig.3 for instance.

It is important to note that the Okubo reference can be used to anticipate the limitation of claim 1 (and associated parallel system claims) – see figure 1 for instance, where the protective layer is the

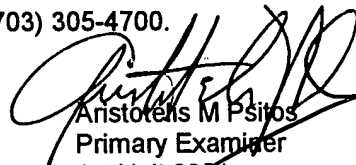
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dielectric layer and the reflection layer is the heat radiating layer of claim 1. The substrate and recording layer are self evident. Although no rejection is presented with respect to this reference, applicants' are reminded of their duty under 37 CFR 1.11 (c) (1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (703) 308-4825. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.


Aristotelis M Psitos
Primary Examiner
Art Unit 2651

AMP
September 18, 2001